

REMARKS

Please cancel Claims 2-3, 11-12 and 20-21 without prejudice. Claims 1, 4-10, 13-19 and 22-26 are pending. Claims 1, 5, 10, 14, 19 and 23 are amended herein. No new matter is added as a result of the claim amendments.

112 Rejections

The instant Office Action states that Claims 2-3, 11-12 and 20-21 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The instant Office Action states that Claims 2-3, 11-12 and 20-21 are also rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the instant Office Action states that the specification does not support the limitation "operations that involve memory other than microprocessor registers that is private to a microprocessor."

Claims 2-3, 11-12 and 20-21 are canceled herein, though limitations from those claims have been added to independent Claims 1, 10 and 19. Applicants respectfully submit that the limitations of Claims 2-3, 11-12 and 20-21 that have been added to Claims 1, 10 and 19 satisfy the requirements of 35 U.S.C. § 112, first paragraph.

102 Rejections

According to the instant Office Action, Claims 1, 4-8, 19 and 22-25 are rejected under 35 U.S.C. § 102(e) as being anticipated by Dice (U.S. Patent No. 6,854,048). The Applicants have reviewed the cited reference and respectfully

submit that the present invention as recited in Claims 1, 4-8, 19 and 22-25 is not shown or suggested by Dice.

Applicants respectfully agree with the statements on pages 7 and 8 of the instant Office Action, to the effect that Dice is silent with regard to the types of operations recited in independent Claims 1 and 19. The Examiner takes Official Notice that the types of operations recited in these claims are conventional and well-known operations.

According to MPEP § 2106: "... when evaluating the scope of a claim, every limitation in the claim must be considered. Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered" (emphases in original).

According to the claims, when read in their entirety, it is not just the types of operations that are at issue, but the fact that speculation is now allowed for certain types of operations, where in the past, speculation was not allowed for those types of operations. Applicants respectfully submit that the Examiner improperly dismisses certain limitations of independent Claims 1 and 19 by parsing those limitations from the remainder of these claims and then declaring those limitations to be well-known and therefore obvious.

A claim composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the art. Inventions may rely on elements that were previously uncovered, and claimed

inventions almost necessarily are combinations of what may have been already known.

In summary, Applicants respectfully submit that Dice does not anticipate all of the limitations of independent Claims 1 and 19, and furthermore, Applicants respectfully submit that the limitations of these claims not shown by Dice are also not obvious in view of either Dice or one of ordinary skill in the art. Specifically, Applicants respectfully submit that Dice does not show or suggest “exiting said first mode and entering a second mode of speculative operation in response to said event, said second mode permitting speculation of a non-null second subset of said first set, wherein said second subset comprises speculative operations not in said first subset, wherein said first set of speculative operations comprises operations that involve memory that is private to a microprocessor, input/output (I/O) writes, main memory reads, main memory writes, and non-architectural faults, and wherein said second subset comprises operations that involve memory that is private to a microprocessor, and architectural faults” as recited in independent Claim 1 and as similarly recited in independent Claim 19.

Accordingly, Applicants respectfully submit that the basis for rejecting Claims 1 and 19 under 35 U.S.C. § 102(e) is traversed. Applicants also submit that the basis for rejecting Claims 4-8 and 22-25 under 35 U.S.C. § 102(e) is traversed, as Claims 4-8 and 22-25 are dependent on Claim 1 or 19 and recite additional limitations.

103 Rejections

Claims 9 and 26

The instant Office Action states that Claims 9 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dice in view of “The Transmeta Code Morphing™ Software: Using Speculation, Recovery, and Adaptive Retranslation to Address Real-Life Challenges” (hereinafter “Dehnert”). The Applicants have reviewed the cited references and respectfully submit that the present invention as recited in Claims 9 and 26 is not shown or suggested by Dice and Dehnert, alone or in combination.

Claim 9 is dependent on independent Claim 1 and recites additional limitations, and Claim 26 is dependent on independent Claim 19 and recites additional limitations. Hence, by demonstrating that the cited references do not show or suggest the limitations of Claims 1 and 19, it is also demonstrated that the cited references do not show or suggest the limitations of Claims 9 and 26.

As presented above, Applicants respectfully submit that Dice does not show or suggest the limitations of Claims 1 and 19. Applicants also submit that Dehnert does not overcome the shortcomings of Dice. While Dehnert appears to describe speculation, Dehnert (even in combination with Dice) does not show or suggest the limitations of Claims 1 and 19 that are discussed above.

Therefore, Applicants respectfully submit that Claims 1 and 19 are allowable over the cited references. Accordingly, Applicants also submit that the basis for rejecting Claims 9 and 26 under 35 U.S.C. § 103(a) is traversed, as Claims 9 and 26 are dependent on Claim 1 or 19 and recite additional limitations.

Claims 10-18

The instant Office Action states that Claims 10-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dehnert in view of Dice. The Applicants have reviewed the cited references and respectfully submit that the present invention as recited in Claims 10-18 is not shown or suggested by Dehnert and Dice, alone or in combination.

By rationale similar to that already presented, Applicants respectfully submit that Dehnert and Dice, alone or in combination, do not show or suggest “executing forward from said speculation boundary according to a partial speculation mode that permits a non-null second subset of said set of speculative operations, wherein said second subset comprises speculative operations not in said first subset and wherein said partial speculation mode is used in lieu of suspending said set of speculative operations in entirety, wherein said first set of speculative operations comprises operations that involve memory that is private to a microprocessor, input/output (I/O) writes, main memory reads, main memory writes, and non-architectural faults, and wherein said second subset comprises operations that involve memory that is private to a microprocessor, and architectural faults,” as recited in independent Claim 10.

Accordingly, Applicants respectfully submit that the basis for rejecting Claim 10 under 35 U.S.C. § 103(a) is traversed. Applicants also submit that the basis for rejecting Claims 11-18 under 35 U.S.C. § 103(a) is traversed, as Claims 11-18 are dependent on Claim 10 and recite additional limitations.

Conclusions

In light of the above remarks, Applicants respectfully request reconsideration of the rejected claims.

Based on the arguments presented above, Applicants respectfully assert that Claims 1, 4-10, 13-19 and 22-26 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

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Respectfully submitted,
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